

WHAT IS CLAIMED:

Claim 1. An appliance for ear cleaning comprising  
an elongated hollow tube defining a stem having at least one  
open end,

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a plurality of lengths of monofilament, each having an  
outboard end and an inboard end,

10 a mass of thermoplastic bonding each of said outboard ends  
of said monofilaments to one another with the respective ones of said  
plurality of lengths of said monofilaments at locations disposed  
substantially 90 degrees apart about the periphery of said mass and  
with each of said lengths of monofilament extending laterally away from  
said mass of thermoplastic, said mass of thermoplastic extending  
laterally thereof onto each of said outboard ends of said lengths of  
monofilament thereby imparting enhanced resistance to bending of each  
of said plurality of lengths of monofilaments within that region  
adjacent their respective outboard ends which are bonded to said mass,

20 each of said plurality of lengths of monofilaments being  
bent along its length to the extent that each of said inboard ends of  
each of said plurality of lengths of monofilament are gathered together  
in side-by-side, closely-packed, relationship,

25 said gathered inboard ends of said lengths of monofilaments  
being received with said at least one open end of said stem,

30 means bonding said gathered inboard ends of said lengths of  
monofilaments within said at least one open end of said stem, thereby  
defining a bulbous configuration of said plurality of lengths of  
monofilaments.

Claim 2. The appliance of Claim 1 wherein said stem of about 6  
cm in length.

Claim 3. The appliance of Claim 1 wherein said stem is formed of  
polypropylene.

Claim 4. The appliance of Claim 1 wherein each of said plurality of lengths of monofilament each is of between about 18 and 25 gauge.

Claim 5. The appliance of Claim 1 wherein said plurality of lengths of monofilament are defined by first and second lengths of monofilament which intersect each other at their respective midpoints and at mutually perpendicular directions and are bonded to one another at their junction of intersection.

Claim 6. The appliance of Claim 5 wherein said intersecting monofilaments are bonded by a mass of thermoplastic which extends laterally away from said junction of intersection and along each of said monofilaments within the region thereof adjacent said juncture of intersection.

Claim 7. The appliance of Claim 6 wherein said mass of thermoplastic is defined by melting and solidification of said intersecting monofilaments at said juncture of intersection of said intersecting monofilaments.

Claim 8. A method of producing an ear cleaning appliance comprising the steps of:

overlaying first and second lengths of thermoplastic monofilament with their midpoints intersecting at mutually perpendicular directions,

applying heat and pressure to said intersection of said first and second lengths of monofilament, said heat and pressure being sufficient to bring said monofilaments to at least a temperature at which said thermoplastic will flow,

15 maintaining said heat and pressure for a time sufficient to cause at least a portion of said overlying thermoplastic monofilaments to flow laterally away from said intersection of said first and second lengths of monofilaments and along at least a portion of each length of monofilaments, thereby defining a mass of thermoplastic at said intersection of said first and second monofilaments which increases the resistance to bending of said lengths of monofilaments in the region to which said mass of thermoplastic has spread,

25 maintaining said pressure for a time sufficient for said heated thermoplastic to solidify, thereby defining a plurality of lengths of monofilament extending away from said mass of thermoplastic in directions spaced 90 degrees apart about the periphery of said mass of thermoplastic, each having an inboard end opposite said mass of thermoplastic,

30 gathering said inboard ends of said plurality of lengths of monofilaments into side-by-side, closely packed, relationship to one another by bending said inboard ends of said plurality of lengths of monofilaments toward one another while that portion of each of said plurality of lengths of monofilament are substantially unrestrained by external means along their lengths intermediate their respective inboard and outboard ends, to define a bulbous configuration from said 35 plurality of lengths of monofilaments,

40 inserting said gathered inboard ends of said plurality of lengths of monofilaments into said at least one open end of said stem, and

anchoring said gathered inboard ends of said plurality of lengths of monofilaments in said at least one open end of said stem.

Claim 9. The method of Claim 8 wherein said heat and pressure are developed by means of a sonic sealer.

Claim 10. The method of Claim 8 wherein each of said monofilaments is of between 18 and 25 gauge.

Claim 11. The method of Claim 8 wherein each of said plurality of lengths of monofilaments is approximately one and one half centimeters.